Patent Claims

1. An arrangement for analyzing body fluids, characterized in that an image recording device (30) is provided and is connected to an electronic image evaluation apparatus.

2. The arrangement as claimed in claim 1, characterized in that the image recording device (30) is a photographic still camera, a color image camera, a video camera or a spectral camera.

3. The arrangement as claimed in one of the preceding claims, characterized in that the body fluid (21) is provided in a chamber (16) with few optical reflections and, if possible, in a chamber (16) with no optical reflections, said chamber being in a container (20), and in that the image recording device (30) is aligned with and focused on the container (20), which is in an analysis position (22).

4. The arrangement as claimed in claim 3, characterized in that in its vertical alignment, the image recording device (30) is aligned with and focused on the container (20) at an acute angle (α).

5. The arrangement as claimed in one of claims 3 or 4, characterized in that an illuminating device (45) for illuminating the container (20) containing the body fluid (21) is provided in the chamber (16) that has few optical reflections, preferably no optical reflections.

6. The arrangement as claimed in claim 5, characterized in that the illuminating device (45) is arranged above the container (20).

7. The arrangement as claimed in one of claims 5 or 6, characterized in that arranged in each case on both

sides of the container (20) located in the analysis position (22) is a lateral lamp (46, 47), the arrangement being such that the mid points (49, 50) of the two lamps (46, 47) and the mid point (51) of the container (20) lie on a straight line (A), and in that a further, middle lamp (48) is provided and arranged in such a way that the mid points (53, 51) of this middle lamp (48) and of the container (20) likewise lie on a straight line (B), which runs perpendicular to the line (A).

8. The arrangement as claimed in claim 7, characterized in that the optical axis (54) of the image recording device (30) runs in a vertical plane that is perpendicular to the line (A), the line (B) lying in this vertical plane.

9. The arrangement as claimed in one of claims 7 or 8, characterized in that the lamps (46, 47, 48) have the same horizontal spacing from the container (20).

10. The arrangement as claimed in claim 9, characterized in that the spacing of each lamp (46, 47, 48) from the container (20) is sixty [60] millimeters.

11. The arrangement as claimed in one of claims 9 or 10, characterized in that the vertical height of the lateral lamps (46, 47) arranged on both sides of the container (20) located in the analysis position (22) is of greater dimension than the vertical height of the middle lamp (48).

12. The arrangement as claimed in claim 11, characterized in that the difference in height between the lateral lamps (46, 47) and the middle lamp (48) is sixteen [16] millimeters.

13. The arrangement as claimed in one of the preceding claims, characterized in that a scanner (29) is

provided that is aligned with the container (20) located in the analysis position (22).

14. The arrangement as claimed in claim 13, characterized in that the scanner (29) is a bar code scanner.

15. The arrangement as claimed in one of the preceding claims, characterized in that an antireflection plate (36) is provided that is arranged on the side of the container (20) turned away from the image recording device (30).

16. The arrangement as claimed in claim 15, characterized in that the antireflection plate (36) is provided with a white surface, and has a concave depression (37) adapted to the peripheral shape of the container (20).

17. The arrangement as claimed in claim 16, characterized in that the depression (37) merges with the aid of rounded-off portions (38, 39) into in each case a flat surface (40, 41) of the antireflection plate (36), and the surfaces (40, 41) end in each case in a sharp-edged vertical edge (42, 43), each edge serving as a measuring edge.

18. The arrangement as claimed in one of claims 15 to 17, characterized in that the antireflection plate (36) is arranged such that it can be moved away from the container (20) from a position bearing against the container (20) in the direction of the optical axis (54) of the image recording device (30), and such that it can be moved up to the container again.

19. The arrangement as claimed in one of the preceding claims, characterized in that a handling apparatus, preferably a lifting rotary gripper (35), is provided for moving a container (20) from its transport position

into its analysis position (22).

20. An apparatus for analyzing body fluids that contains an arrangement as claimed in one of claims 1 to 19.

21. A method for analyzing body fluids, characterized in that at least one image of the body fluid (21) that is analyzed by means of image processing software is produced by means of an image recording device (30).

22. The method as claimed in claim 21, characterized in that the end edges (28) of a label (27) located on the container (20) are detected by means of a scanner (29), and in that the container (20) is subsequently brought by means of control software into an analysis position (22) in which the label (27) lies on the side of the container (20) averted from the image recording device (30).

23. The method as claimed in claims 21 or 22, characterized in that one or more detailed images are produced that are combined to form an overall image by means of the image processing software.